

Claims

1. (Currently Amended) A device for producing a protective liquid barrier which prevents gases (~~G~~) coming from a structure, such as a machine, a storage unit or a production system (~~P~~), from spreading at ground level beyond a particular area in the event of an incident,
 - having nozzles (~~4~~) connected to a fluid supply (~~5~~) and arranged in the vicinity of at least one lengthwise section of a boundary of the area,
 - which respectively emit an upwardly directed liquid jet (~~W~~) starting from ground level in the event of the incident, and
 - are positioned at a mutual spacing (~~A~~) such that at each position of the lengthwise section an air-gas flow (~~F, G~~) starting from the bottom (~~9~~) of the area, essentially directed perpendicularly to the bottom (~~9~~) and entraining the gas (~~G~~) flowing at ground level, is created by the overlap of the liquid jets (~~W~~) respectively emitted by the nozzles (~~4~~),
 - the nozzles (~~4~~) being arranged in a channel (~~2~~) formed along the lengthwise section, at a vertical distance (~~T~~) from its outlet opening.
2. (Currently Amended) The device according to Claim 1,
~~characterized in that~~
wherein
the nozzles (~~4~~) emit a liquid spray jet (~~W~~).
3. (Currently Amended) The device according to Claim 1 ~~one of the preceding~~
~~claims,~~
 - ~~characterized in that~~
wherein

the nozzles (4) emit a flat jet (W) spreading in the shape of a fan along the lengthwise section.

4. (Currently Amended) The device according to Claim 1 ~~one of the preceding~~ claims,

~~characterized in that~~

wherein

the fluid supply (5) applies a high pressure to the fluid emerging from the nozzles (4).

5. (Currently Amended) The device according to Claim 1 ~~one of the preceding~~ claims,

~~characterized in that~~

wherein

the outlet openings of the nozzles (4) are arranged below the surface (8) of the ground (9).

6. (Currently Amended) The device according to Claim 5,

~~characterized in that~~

wherein

the outlet opening of the channel (2) is delimited by a sharp edge at least on its lengthwise side facing the structure (P).

7. (Currently Amended) The device according to Claim 1 ~~one of the preceding~~ claims,

~~characterized in that~~

wherein

in addition to the nozzles (4) which emit a liquid jet (~~W~~), further nozzles (7) which emit an upwardly directed gas (~~P~~) are distributed along the lengthwise section.

8. (Currently Amended) The device according to Claim 7,
~~characterized in that~~
wherein
the further nozzles (2) are connected to a compressed air supply.
9. (Currently Amended) The device according to Claim 1 ~~one of the preceding~~
~~claims,~~
~~characterized in that~~
wherein
on the side of the nozzles facing away from the structures (~~P~~), there are air delivery instruments (14) which provide directed delivery of the ambient air (~~P~~) on this side into the air-gas flow (~~F, G~~) produced by the nozzles (4).
10. (Currently Amended) The device according to Claim 9,
~~characterized in that~~
wherein
the air delivery instruments are designed as air feed channels (14) leading from the surface of the ground (8) into the vicinity of the nozzles (4, 7).
11. (Currently Amended) The device according to Claim 1 ~~one of the preceding~~
~~claims,~~
~~characterized in that~~
wherein
the fluid is water.

12. (Currently Amended) A method for isolating an area against the spreading of gases (G) coming from a structure, such as a machine, a storage unit or a production system (P), in which an air-gas flow (F, G) starting from the bottom (9) of the area, essentially directed perpendicularly to the bottom (9) and entraining upwards the gas (G) flowing at ground level, is produced at least one lengthwise section of the boundary of the area in the event of an incident by forming an upwardly directed liquid barrier starting from ground level from liquid jets (W), the liquid jets (W) being produced by nozzles (S) which are arranged in a channel (2), at a vertical distance (T) from the outlet opening of the channel (2).

13. (Currently Amended) A method according to Claim 12,

~~characterized in that~~

wherein

a plurality of nozzles (4) are positioned at a mutual spacing (A) along the lengthwise section such that at each position of the lengthwise section air-gas flow (F, G) entraining the gas (G) flowing at ground level is created by the overlap of the liquid jets (W) respectively emitted by the nozzles (4).

14. (Currently Amended) A method according Claim 12 ~~to one of Claims 12 and 13,~~

~~characterized in that~~

wherein

a pressurised fluid under high pressure is applied to the nozzles (4).